

Antenna

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Uplink + Downlink (TX/RX) with Dish

- [BaMaTech](#) - DuoBand-Feed
- [G0MJW, PA3FYM & M0EYT](#) - "POTY" (Patch Of The Year)

To receive [QO-100](#) you need at least an 85 cm dish and preferably 1 m or more for DATV and on the edge of the [footprint](#). Learn how to aim your dish at the [Es'hail-2](#) satellite on [Es'hail-2 \(QO-100\) Dish Pointing](#) or on [DishPointer](#). On DishPointer first select "25.9E ES" on the right and then "Your location". Then draw the direction line exactly to your location. Here you will also find the [skew angle](#) for adjusting your [LNB](#). Now you should be able to easily align your dish and receive the first PSK beacon signals. You can now make fine adjustments using the beacon signal ([Audio sample](#)).

Note: Do not look for the footprint of [Es'hail-2](#), this is different from the [QO-100](#) transponder. For [Es'hail-2](#), you'll just find spot beams for its TV channels.

For the uplink, choose a patch [antenna](#) or a helix (LHCP) as the feeder. Kurt, DJ0ABR, wrote an [article about building a helix feeder yourself](#). And here you will find an [article by Matthias](#), DD1US, about his construction with dual band feed and [LNB](#).

Uplink with other antennas

A right-hand circular (RHCP) helix [antenna](#) can also be used via the NB transponder. However, this is not recommended. Such a Helix [antenna](#) has a lower gain than a medium sized parabolic dish. Thus, more transmit power is needed and this results in combination with the broader beam-width and the lower front-back-ratio to unnecessary high radiation in the vicinity of the [antenna](#). It is also possible to use a 2.4 GHz WiFi grid [antenna](#). Also this is not very efficient as they are usually linear polarized and thus exhibit a loss of 3 dB compared to right-hand circular polarization.

[Helix.png](#) [wifi grid antenna small.jpg](#)

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